Huff, Gwen

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Sent: Monday, June 07, 2010 7:16 PM
To: Water Use Efficiency
Cc: cchorneau@ccp.csus.edu; Ronnie Cohen; Milman, Anita; Obegi, Doug
Subject: NRDC Comments on Urban Methodologies
Attachments: USC Comments-6-7-10.doc

Attached please find the comments of the Natural Resources Defense Council regarding the draft urban water efficiency methodologies discussed by the Urban Stakeholders Committee.

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NATURAL RESOURCES DEFENSE COUNCIL

June 7, 2010

To: Manucher Alemi, Chief, Water Use Efficiency Branch, DWR

From: Ed Osann, Senior Policy Analyst

Re: Comments on Urban Methodologies

Methodology 1 – Gross Water Use

Step 3 – Compile the Volume of Water. We support the proposed language that calls for calibration of production and import meters and the use of corrected values based upon such calibration for the determination of Gross Water Use. It should be noted that BMP 1.2 of the MOU on Urban Water Conservation in California calls for all signatory water suppliers to test the accuracy of their source, import, and production meters annually beginning July 1, 2010. However, when compiling water volumes for determining Base Daily Per Capita Water Use, records going back 10 years or more require special consideration. While footnote 6 notes that bulk water meters recording volumes for wholesale transactions are routinely monitored for accuracy, production meters at treatment plants may not play the same role in the revenue generating process, and may have been calibrated far less frequently than import meters. The methodology should require the backcasting of adjustments when calibration is performed on production meters that have been tested less frequently than once per year, so that an accurate assessment of base period consumption can be presented. Otherwise, significant distortions can accumulate in the data of a 10-year baseline.

Step 6 – Calculate the Net Change in Distribution System Storage. This provision should be modified to exclude storage fluctuations in tanks and reservoirs that are sized and positioned to respond to routine fluctuations in customer demand on a daily and seasonal basis. The statute allows for the exclusion of water placed in *long-term* storage, not just any storage. Facilities sized for carry-over storage should be identified, and the provisions of Step 6 limited to such facilities. Unless so limited, the methodology will invite gaming of storage calculations in compliance years, as volumes recorded during the first and last day of the year can easily be manipulated.

Step 10 – Deduction of Agricultural Water. We support the application of this provision to water supplied for commercial production of agricultural crops or livestock. To this end, the language should be clarified to clearly exclude water for livestock maintained for a water user's recreational use (including horses) and for small tracts of five acres or less producing crops or livestock in non-commercial quantities.

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Step 11 – Deduction of Process Water. The first condition purporting to determine whether the percentage of a supplier's total water use delivered for industrial purposes is "substantial" is far from any common sense understanding of the term. This provision is needed to allow for water suppliers that are atypical in serving significant industrial loads. Thus 4% is far too low; 10 to 15% would be a more appropriate range. Furthermore, the second condition allowing for a process water deduction – a combined *commercial* and industrial percentage of at least 20% -- has no basis in the statute and should be removed.

Regarding the computation of industrial process water use on pages 1-6 and 1-7, the text would allow proration in instances where an urban water supplier supplies only part of an industrial water user's water supply. Proration only makes sense in cases where it is documented that publicly-supplied potable water is actually and routinely used in process water applications. One contrasting, but likely, scenario would be that publicly-supplied water is used for sanitation and HVAC while self-supplied water with minimal levels of on-site treatment is used as process water. An alternative scenario might be a bottling plant or a chip manufacturer where publicly-supplied water is used directly in process applications, or even perhaps treated on-site to a higher quality and then used in a process application. The latter would be fair to prorate, but the first scenario should not qualify for proration.

Methodology 2 – Service Area Population

There are several points where the language should be clarified –

- Page 2-3, 3rd full paragraph – "2000 census population estimate". Why "estimate"? Isn't this the 2000 population count?

- Page 2-7, 3rd full paragraph – "inactive during the year". What exactly does this mean? Zero flows for 12 months?

- Page 2-8, 4th full paragraph – Further improvements. This whole paragraph seems to invite further fudging and manipulation. How might these ancillary sources be used to improve estimates of service area population? What specifically is meant by "improvement" in this context? This language should be tightened up and less open-ended.

- Page 2-8, last paragraph. Adjustment to population estimates. This paragraph anticipates use of the 2010 census to make adjustments in base year calculations, sometime in 2012. It may not be possible to specify until more is known about the 2010 data formats (maybe that's already known today), but the process of adjusting base period calculations with 2010 data should itself be subject to guidance by DWR before being employed by urban suppliers.

Methodology 3 – Base Daily per Capita Water Use

As a result of the computations under Methodology 2, urban suppliers will have all the data they need to compute daily per capita residential consumption (with single family and multi-family disaggregated), as well as total per capita consumption. Residential per capita consumption would be useful for benchmarking in and of itself, in addition to total consumption. DWR should ensure that residential consumption figures get reported, even if they are not the basis for determining compliance.

Methodology 5 – Residential Indoor Use

A retail water supplier that is unable to distinguish multifamily residential connections and consumption from CII connections and consumption by January 1, 2015, should be required to use another water use target method.

Methodology 6 – Landscaped Area Water Use

- Definition of Landscaped Area Water Use – This section should clarify that all multifamily residential parcels must be included in the calculation of residential landscaped area.

  Additionally, while water suppliers need to develop an estimate of 2020 irrigated landscaped areas for purposes of setting the urban water use target, the supplier should be required, as part of its initial target-setting by July 1, 2011, to separately report the water use allowed for the actual, current irrigated landscaped area, i.e., landscapes installed or renovated prior to January 1, 2010, and thus subject to the criteria of the 1992 version of the Model Water Efficient Landscape Ordinance, along with the estimated allowable water use for landscaped areas projected to be installed or renovated in 2010 or later. For many water suppliers, most of their 2020 landscaped area has already been installed as of 2010, and there is risk in carrying forward an unnecessarily imprecise target all the way to 2020 only to find that the target cannot be achieved. Ultimately, the landscape component of the target must be based on 2020 conditions, and to some degree, this landscaped area is a moving target. But for existing landscapes this can and should be calculated. It is only the amount of new landscaping that has to be projected.

- Calculation of Landscaped Area Water Use – This section should clarify the 2010 Model Ordinance's definition of Special Landscaped Area (SLA) regarding parcels "where turf provides a playing surface." Without further clarification, this language could be interpreted by some water suppliers to be applicable to virtually any residential backyard turf area, thus broadly extending the additional water consumption allowance provided to an SLA to a far larger fraction of installed turf than was ever intended.

- Methodology for Computation of Landscaped Area – This section should clarify that all hardscape is to be excluded from the computation of irrigated landscape

area. Additionally, regarding swimming pools, a fair reading of the law would exclude them from the "irrigated" area, and we support their exclusion as proposed in the draft.

- Estimating Irrigated Landscaped Area from Total Landscaped Area – This section should clarify the meaning of "landscape irrigation system" as including hose and sprinkler irrigation, as well as in-ground irrigation systems.

- Estimating Reference Evapotranspiration – The third bullet in this section allows water suppliers additional latitude to employ local reference ET estimates that differ from either the values contained in the Appendix A of the 2010 Model Ordinance or the guidance in the Model Ordinance for making adjustments based on published CIMIS ET zones. Why is this necessary? While the language of the third bullet states that these novel reference ET estimates made by a retail supplier must be "of comparable reliability" to CIMIS estimates, it is unclear what value is added by encouraging improvisation here, rather than using CIMIS-based estimates directly available under Appendix A or the approved interpolation methodology in the Model Ordinance. This third bullet appears to invite gaming by retail suppliers facing challenging irrigation water consumption limits computed under the first two bullets.

Methodology 7 – Baseline CII Water Use

The process water exclusion must only be available to water suppliers with a "substantial percentage" of industrial water use. "Substantial percentage", as defined in Methodology 1, Gross Water Use, is far too low, stretching this adjustment into a significant loophole. Industrial use in excess of 15% would be a more appropriate threshold.

General Considerations

Target-setting for the second compliance path involves a great deal of time, expense, and uncertainty. It is hard to imagine an agency going to this much trouble within the next twelve months to commit to a target that may initially look to be a few percentage points lower than the 1st or 3rd compliance paths, but may prove to be illusory by the time 2020 arrives. If done accurately, a target based on the .8 reference ET requirement in the 1992 model ordinance applied to all existing residential landscape (and only to irrigated landscape areas, excluding all hardscape from the equation) will be exceptionally challenging. The indoor residential allowance is probably overly generous, but there is no allowance in option 2 for distribution system losses at all. Knowing this, we trust that very few water suppliers will want to expend the time and resources to develop such a target, as opposed to putting their money directly into efficiency programs.

Reviewing these reports will take a tremendous amount of effort by DWR and the only way that it can be done is by standardizing and consistently applying the methodology (recognizing that there are adjustment mechanisms specified in the law for certain situations, and that DWR is developing methodologies for those adjustments). DWR

does not have the resources to assess whether every alternate approach is the equivalent of the proposed methodology.

Finally, there was a question at the June 1 meeting about whether agencies should be allowed to change their compliance path - for example if they start out on Path 2 but find that they can't do it, can they switch to Path 1? The statute appears to allow for water suppliers that have chosen compliance Path 4 to revise their target to no more than 20% or to select a different compliance path if DWR revises the method for Path 4. There is also an opportunity provided to any agency to "update" its 2020 target in its 2015 urban water management plan. In the interest of equity, ease of administration, and furthering the achievement of the 20% goal for the state as a whole, we believe that DWR should not provide more accommodation for water suppliers to switch around compliance paths than is contained in the statute.